In the United States Patent and Trademark Office
on Appeal from the Examiner to the Board
of Patent Appeals and Interferences

In re Application of:	James Thompson et al.
Serial No.:	09/767,374
Filing Date:	January 22, 2001
Group Art Unit:	2452
Confirm:	2543
Examiner:	Dohm Chankong
Title:	DISTRIBUTED NETWORK COMMUNICATION SYSTEM WHICH ALLOWS MULTIPLE WIRELESS SERVICE PROVIDERS TO SHARE A COMMON NETWORK INFRASTRUCTURE

Commissioner for Patents

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APPEAL BRIEF

Appellants appeal to the Board of Patent Appeals and Interferences from the Final Office Action sent October 24, 2011 and Notice of Panel Decision from Pre-Appeal Brief Review dated March 14, 2012, finally rejecting pending Claims 146-166, 168-172, 174-177, 179-221, 256-274, 276-279, 286-301, 303-311 of the Application.

TABLE OF CONTENTS

REAL PARTY IN INTEREST

Cisco Technology, Inc. currently owns the Application as indicated by the assignment recorded on January 27, 2009 in the Assignment Records of the United States Patent and Trademark Office at Reel 022162, Frame 0069.

SUMMARY OF CLAIMED SUBJECT MATTER

This Application generally relates to wireless network communications and enabling a network infrastructure to support multiple wireless service providers and/or customers of multiple wireless service providers. In certain embodiments, different access levels can be enabled within a wired or wireless network system. Providing access to multiple wireless service providers (WSPs) on a shared network infrastructure may include having a plurality of access points (APs) coupled to a network which may be distributed in airports, mass-transmit stations, businesses, etc. In addition, the network may couple to a wide area network, such as the Internet. Each AP may include a plurality of virtual APs (VAPs), each corresponding to a WSP.

A user's portable computing device (PCD) may store identification information indicating a WSP of a plurality of possible WSPs, which may include an access level of the user. Each AP may detect identification information associated with numerous WSPs. When the AP receives the identification information from the PCD, the AP may determine the appropriate VAP/WSP for the PCD using the identification information. In this fashion, network access may be selectively provided to the PCD through the determined WSP at the appropriate access level.

With regard to the independent claims currently under Appeal, Appellants provide the following concise explanation of the subject matter recited in the claim elements. For brevity, Appellants do not necessarily identify every portion of the specification and drawings relevant to the recited claim elements. Additionally, this explanation should not be used to limit Appellants' claims but instead is intended to assist the Board in considering the Appeal of this Application.

Independent Claim 146

A method for providing access to a network system, the method comprising:

a first access point coupled to the network receiving system identification information from a portable wireless computing device in a wireless manner, wherein the system identification information includes an identifier for a first virtual local area network (VLAN) from among a plurality of possible VLANs and wherein each of at least two of the plurality of possible VLANs is dedicated to a different respective network service provider from among a plurality of network service providers;

the first access point determining the first VLAN of the plurality of possible VLANs for the portable wireless computing device after receiving the system identification information;

the first access point determining a geographic location of the portable wireless computing device;

the first access point selectively providing network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the determined first VLAN;

the first access point receiving data from the portable wireless computing device; and

the first access point providing the received data to a first network service provider based on one or more attributes of the determined first VLAN.

See, e.g., Figures 2-9 and in the Specification at page 28, line 1—page 49, line 20.

Independent Claim 174

An apparatus to implement an access point, the apparatus comprising

a wireless access point coupled to a network, wherein the wireless access point is operable to wirelessly communicate with a portable wireless computing device, wherein the first wireless access point is operable to receive system identification information from the portable wireless computing device including an identifier of a VLAN from among a plurality of possible VLANs;

wherein each of at least two of the plurality of possible VLANs corresponds to a different respective network service provider from among a plurality of network service providers;

wherein the first wireless access point is operable to determine the identifier of the VLAN indicated in the system identification information, wherein the determined VLAN corresponds to a first network service provider;

wherein the first wireless access point is operable to determinine a geographic location of the portable wireless computing device;

wherein the first wireless access point is operable to select the first network service provider from among the plurality of possible network service providers based on the determined VLAN to provide network access to the portable wireless computing device; and

wherein the first wireless access point is operable to selectively provide the network access based on the received system identification information and the determined geographic location of the portable wireless computing device.

See, e.g., Figures 2-9 and in the Specification at page 28, line 1—page 49, line 20.

Independent Claim 177

A system comprising:

a wireless access point operable to communicate with a portable wireless computing device in a wireless fashion,

wherein the wireless access point is configured to receive system identification information from the portable wireless computing device indicating a VLAN from among a plurality of possible VLANs;

wherein the wireless access point is operable to determine the VLAN indicated by the system identification information;

wherein the wireless access point is operable to determine a geographic location of the portable wireless computing device;

wherein the wireless access point is operable to selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided through the determined VLAN;

wherein at least two of the plurality of possible VLANs is associated with a different respective network service provider from among a plurality of network service providers; and

wherein the access point is operable to maintain an association between each of the at least two of the plurality of possible VLANs and the respective network provider from among a plurality of network service providers.

See, e.g., Figures 2-9 and in the Specification at page 28, line 1—page 49, line 20.

Independent Claim 202

A method for operating a network system, the method comprising:

receiving, in a first access point coupled to a network, system identification information transmitted from a portable wireless computing device in a wireless manner;

determining, in the first access point, a VLAN tag corresponding to the system identification information;

determining a geographic location of the portable wireless computing device;

selectively providing network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the determined VLAN tag;

providing the VLAN tag and the data received from the portable wireless computing device to the network;

maintaining an association between the VLAN tag and a respective network provider from among the plurality of network providers; and

routing the data received from the portable wireless computing device to the respective network provider associated with the determined VLAN tag from among the plurality of network providers.

See, e.g., Figures 2-9 and in the Specification at page 28, line 1—page 49, line 20.

Independent Claim 256

A computer readable memory medium comprising program instructions for providing access to a network system, wherein the program instructions are executable by a wireless access point and are operable to:

receive system identification information from a portable wireless computing device in a wireless manner, wherein the system identification information includes an identifier for a first VLAN of a plurality of possible VLANs and wherein each of at least two of the plurality of possible VLANs corresponds to a different respective network service provider from among a plurality of network service providers;

determine a first VLAN identifier of for the portable wireless computing device after receiving the identification information, wherein the first VLAN is associated with a first network service provider;

determine a geographic location of the portable wireless computing device;

selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the determined first VLAN;

receive data from the portable wireless computing device; and

provide the received data to the first network service provider using one or more attributes associated with the first VLAN.

See, e.g., Figures 2-9 and in the Specification at page 28, line 1—page 49, line 20.

Independent Claim 286

A network system, comprising:

a plurality of wireless access points coupled to a network, wherein each of the plurality of wireless access points is operable to communicate with a portable wireless computing device in a wireless fashion;

wherein each of the plurality of wireless access points is configured to receive system identification information from the portable wireless computing device including an identifier for a VLAN from among a plurality of possible VLANs;

wherein each of the plurality of access points is operable to determine the VLAN indicated by the system identification information;

wherein each of the plurality of wireless access points is operable to determine a geographic location of the portable wireless computing device;

wherein each of the plurality of wireless access points is operable to selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided through the determined VLAN;

wherein the system identification information includes an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification (SID) of a plurality of possible SIDs;

wherein the first access point is operable to recognize the SID of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated with a respective one of the plurality of possible VLANs;

wherein each of the plurality of possible SIDs includes one or more of an Institute of Electronic Engineers (IEEE) standardized 802.11 Service Set Identifier (SSID), an Extended Service Set Identifier (ESSID), and a Basic Service Set Identifier (BSSID).

See, e.g., Figures 2-9 and in the Specification at page 28, line 1—page 49, line 20.

Independent Claim 287.

A system comprising:

a wireless access point operable to communicate with a portable wireless computing device in a wireless fashion, wherein the wireless access point is configured to receive system identification information from the portable wireless computing device including an identifier for VLAN of a plurality of possible VLANs;

wherein the wireless access point is operable to determine the VLAN indicated by the system identification information;

wherein the wireless access point is operable to determine a geographic location of the portable wireless computing device;

wherein the wireless access point is operable to selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided through a service provider associated with the determined VLAN;

wherein the system identification information includes an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification (SID) parameter to distinguish the SID from among a plurality of possible SIDs;

wherein the wireless access point is operable to recognize each SID of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is identified with a respective one of the plurality of possible VLANs;

wherein each of at least two of the plurality of possible VLANs is associated with a different respective service provider; and

wherein, for each of the at least two VLANs associated with a different respective service provider and identified by an SID, the wireless access point is operable to maintain an association between the SID and a respective plurality of active subscribers of the associated service provider.

See, e.g., Figures 2-9 and in the Specification at page 28, line 1—page 49, line 20.

Independent Claim 288

A network system, comprising:

a plurality of wireless access points coupled to a network, wherein each of the plurality of wireless access points is operable to communicate with a portable wireless computing device in a wireless fashion, wherein each of the plurality of wireless access

points is configured to receive system identification information from the portable wireless computing device including an identifier for a VLAN of a plurality of possible VLANs;

wherein each of the plurality of access points is operable to determine the VLAN indicated by the system identification information;

wherein each of the plurality of access points is operable to determine a geographic location of the portable wireless computing device;

wherein each of the plurality of wireless access points is operable to selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided through the determined VLAN;

wherein the plurality of access points are maintained by a first network service provider; and

wherein the system identification information indicates a second network service provider.

See, e.g., Figures 2-9 and in the Specification at page 28, line 1—page 49, line 20.

Independent Claim 289

An apparatus providing a wireless access point, the apparatus comprising:

a processor;

a memory medium coupled to the processor;

a port coupled to the processor, wherein the port is operable to be coupled to a network; and

a wireless transceiver coupled to the processor;

wherein the wireless transceiver is operable to receive system identification information from a portable wireless computing device in a wireless manner, wherein the system identification information includes an identifier for a first VLAN of a plurality of possible VLANs, and wherein each member of a non-empty subset of the plurality of possible VLANs corresponds to a respective network service provider;

wherein the memory medium contains program instructions executable by the processor and operable to:

determine the identifier for the first VLAN of the plurality of possible VLANs for the portable wireless computing device after receiving the identification information;

determine a geographic location of the portable wireless computing device;

selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the first VLAN; and

provide data received from the portable wireless computing device to a first network service provider, wherein the first network service provider is associated with one or more attributes of the first VLAN.

See, e.g., Figures 2-9 and in the Specification at page 28, line 1—page 49, line 20.

ARGUMENT

For at least the following reasons, the Examiner's rejections of Claims 146-166, 168-172, 174-177, 179-221, 256-274, 276-279, 286-301, 303-311 are improper and the Board should reverse them.

I. Claims 146-177, 179-190, 192-210, 212-221, 256-279, 285, and 287-301 are allowable over *Meier, Garrett,* and *Short*

The Examiner's proposed combination of *Meier, Garrett,* and *Short* fails to teach or suggest the combination of elements cited in the claims, and therefore the Board should reverse the rejection.

Consider Appellants' Claim 146, which recites:

> A method for providing access to a network system, the method comprising:
>
> a first access point coupled to the network receiving system identification information from a portable wireless computing device in a wireless manner, wherein the system identification information includes an identifier for a first virtual local area network (VLAN) from among a plurality of possible VLANs and wherein each of at least two of the plurality of possible VLANs is dedicated to a different respective network service provider from among a plurality of network service providers;
>
> the first access point determining the first VLAN of the plurality of possible VLANs for the portable wireless computing device after receiving the system identification information;
>
> the first access point determining a geographic location of the portable wireless computing device;
>
> the first access point selectively providing network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the determined first VLAN;
>
> the first access point receiving data from the portable wireless computing device; and
>
> the first access point providing the received data to a first network service provider based on one or more attributes of the determined first VLAN.

Among other aspects, the cited references do not teach or suggest, "the first access point selectively providing network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the determined first VLAN," as Claim 146 recites.

As teaching these claimed concepts, the Examiner relies on *Short*. *See Office Action*, p. 3 (citing column 6, lines 58-61 and column 7, lines 31-35 of *Short*). Notably, however, *Short* teaches away from the subject matter of Appellants' claims. In particular, *Short* does not provide network access based on "system identification information" of any portable wireless computing device. In addition, *Short* does not describe providing network access based on the "determined geographic location of the portable wireless computing device." Instead, *Short* discloses an initial installation configuration process that grants network access to a specific location, such as a specific port in a hotel room. Accordingly, *Short* teaches away from providing network access to a portable wireless computing device based on at least two specific parameters of the portable wireless computing device: its system identification information and its geographic location.

In fact, the portions of *Short* that the Examiner relies on for his rejection make this very clear. In particular, *Short* describes a "network system . . . grant[ing] network access to a specific location (e.g. a hotel room, a specific apartment address, etc) **rather than a specific user or host residing at the location**." *Short*, col. 6, ll. 58-61 (emphasis added). *Short* further discloses "configuration upon **initial installation** to accommodate location-based identification" by "configuring the gateway so that VLAN ID's are assigned to individual entities or ports (i.e. room numbers, apartment, units, etc.)" *Id.* at col. 9, ll. 38-45 (emphasis added). For example, "[a]dding a port-assignment to the gateway device database may involve assigning a port number, assigning a location to the port number and a conditional state for this port-location." *Id.* at col. 9, ll. 47-50.

Thus while *Short* discloses granting access to specific ports that are tied to particular locations, *Short* does not teach or suggest, "the first access point selectively providing network access to the portable wireless computing device **based on the received system identification information and the determined geographic location of the portable wireless computing device**," as required by the claim. In fact, as noted above, *Short* teaches away from selectively providing network access based on either or both (1) "the received

system identification information" and (2) "the determined geographic location of the portable wireless computing device." Instead, *Short* teaches granting network access based on the location of the port, regardless of any system identification information or the location of any computing device. Indeed, network access may be granted to a port during "initial installation" before any device is ever connected to the port. *See id.* at col. 9, ll. 38-45. Therefore, *Short* fails to teach or suggest, "the first access point determining a geographic location of the portable wireless computing device," let alone "the first access point selectively providing network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device." Accordingly, Claim 146 is allowable.

In addition, the Examiner points to certain portions of Applicants specification to somehow argue that "*Short*'s teaching is similar in scope to what is described in Applicant's specification." *Office Action*, p. 4 (emphasis in original). The Examiner's reasoning is legally flawed, because it fails to focus on Applicants' claim language. The MPEP states that "[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the **claimed** invention would have been obvious." MPEP § 2142 (emphasis added). Accordingly, the Examiner's focus on certain aspects of the specification that may (or may not) disclose related embodiments is misplaced. *Meier* and *Garrett* fail to cure these deficiencies. Accordingly, because the Examiner has failed to demonstrate that cited references teach or suggest all claimed concepts, Claim 146 is allowable.

Independent Claims 174, 177, 202, 256 and 286-289 include limitations that, for substantially similar reasons are not taught or suggested by the various proposed combinations of the cited references. Accordingly, Appellants respectfully requests the Board to direct the Examiner to issue a Notice of Allowance for Claims 146, 174, 177, 202, 256 and 286-289 and their respective dependent claims.

II. Claims 302-311 are allowable over *Meier, Garrett, Short* and *Sheynblat*

The Examiner's proposed combination of *Meier, Garrett, Short* and *Sheynblat* fails to teach or suggest the combination of elements cited in Claims 303-311, and therefore the Board should reverse the rejection.

In addition to the reasons above for allowing Claims 303-311, the cited references do not teach or suggest "the first access point receiving Global Positioning System (GPS) data

from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device," as these dependent claims require. *See, e.g.*, Claim 303. As teaching these claimed aspects, the Examiner points to Figure 1, items 9, 12a-12d, column 4, lines 33-61, column 18, line 55 and column 20, lines 23-28 of *Sheynblat*. *Office Action*, p. 37-38. Applicants respectfully submit that it is improper to combine *Sheynblat* with *Meier, Garret,* and *Short*. While *Sheynblat* appears to teach the use of "mobile GPS receivers," *Short* teaches away from location based identification tied to a specific user or host residing at a location. Instead, as discussed above, *Short* teaches "grant[ing] network access to specific location [using a port-location mapping] . . . **rather than [using] a specific user or host residing at the location**." *Short*, col. 6, ll. 58-61.

Moreover, modifying *Short* to use GPS data from the portable device changes the principle of operation of *Short*'s disclosure, which is directed to facilitating location-based network management using port-location mappings. For example, as discussed above, *Short* discloses "configuration upon **initial installation** to accommodate location-based identification" by "configuring the gateway so that VLAN ID's are assigned to individual entities or ports (i.e. room numbers, apartment, units, etc.)" *Id.* at col. 9, ll. 38-45 (emphasis added). Since the proposed modification to *Short* would change its principle of operation, *Sheynblat*'s disclosure is insufficient to render the claims *prima facie* obvious. *See* MPEP 2143.01. VI (citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). For these additional reasons, Applicants respectfully request that the Board instruct the Examiner to issue a Notice of Allowance for Claims 303-311.

III. Claim 191 is allowable over *Meier, Garrett, Short* and *IEEE*

The Examiner's proposed combination of *Meier, Garrett, Short* and *IEEE* fails to teach or suggest the combination of elements cited in the claims, and therefore the Board should reverse the rejection. Claim 191 depends from claims that are allowable for the reasons stated above. IEEE fails to cure these deficiencies. Accordingly, Applicants request the Board to direct the Examiner to issue a Notice of Allowance for Claim 191.

IV. Claim 211 is allowable over *Meier, Garrett, Short* and *APA*

The Examiner's proposed combination of *Meier, Garrett, Short* and *APA* fails to teach or suggest the combination of elements cited in the claims, and therefore the Board

should reverse the rejection. Claim 121 depends from claims that are allowable for the reasons stated above. *APA* fails to cure these deficiencies. Accordingly, Applicants request the Board to direct the Examiner to issue a Notice of Allowance for Claim 211.

CONCLUSION

Appellants have demonstrated the pending claims are allowable, and thus respectfully request the Board to reverse the Examiner's final rejection of the pending claims and instruct the Examiner to issue a notice of allowance of the same.

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CLAIMS APPENDIX

Claims 1-145. (Cancelled).

146. (Previously presented) A method for providing access to a network system, the method comprising:

a first access point coupled to the network receiving system identification information from a portable wireless computing device in a wireless manner, wherein the system identification information includes an identifier for a first virtual local area network (VLAN) from among a plurality of possible VLANs and wherein each of at least two of the plurality of possible VLANs is dedicated to a different respective network service provider from among a plurality of network service providers;

the first access point determining the first VLAN of the plurality of possible VLANs for the portable wireless computing device after receiving the system identification information;

the first access point determining a geographic location of the portable wireless computing device;

the first access point selectively providing network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the determined first VLAN;

the first access point receiving data from the portable wireless computing device; and

the first access point providing the received data to a first network service provider based on one or more attributes of the determined first VLAN.

147. (Previously presented) The method of claim 146, wherein the providing the received data to a first network service provider based on the determined first VLAN comprises:

determining, as a function of the first VLAN identifier, a first network destination; and

forwarding the received data to the determined first network destination.

148. (Previously presented) The method of claim 146,

wherein each of a plurality of possible VLANs is associated with a respective network destination of a plurality of possible network destinations;

wherein the first VLAN is associated with a first network destination;

wherein said providing comprises forwarding the received data to the first network destination.

149. (Previously presented) The method of claim 148,

wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

150. (Previously presented) The method of claim 148,

wherein at least a subset of the network destinations are dedicated to wireless service providers.

151. (Previously presented) The method of claim 148,

the first access point coupled to the network receiving second system identification information from a second portable wireless computing device in a wireless manner, wherein the second system identification information includes an identifier for a second VLAN of the plurality of possible VLANs;

the first access point determining the second VLAN of the plurality of possible VLANs for the second portable wireless computing device from the received second system identification information;

the first access point receiving second data from the second portable wireless computing device; and

the first access point providing the received second data to a second network service provider based on one or more attributes of the determined second VLAN.

152. (Previously presented) The method of claim 146, further comprising:

the first access point receiving second system identification information from a second portable wireless computing device in a wireless manner, wherein the second system identification information includes an identifier for a second VLAN of the plurality of possible VLANs;

the first access point determining the second VLAN of the plurality of possible VLANs from the received second system identification information;

the first access point receiving second data from the second portable wireless computing device; and

the first access point providing the second received data to a second network destination based on one or more attributes of the determined second VLAN.

153. (Previously presented) The method of claim 146,

wherein the network system includes a memory medium which stores a data structure comprising a list of VLAN identifier entries and, for each entry, one ore more VLAN attributes, for each of the VLANs in the plurality of possible VLANs; and

wherein said determining the first VLAN of the plurality of possible VLANs includes accessing the memory medium and using the received VLAN identification information to determine one or more attributes of the first VLAN.

154. (Previously presented) The method of claim 153,

wherein said determining one or more attributes of the first VLAN of the plurality of possible VLANs comprises indexing into the data structure using the VLAN identification information to access one or more attributes of the first VLAN.

155. (Previously presented) The method of claim 153,

wherein the memory medium is contained in the first access point.

156. (Previously presented) The method of claim 153,

wherein the one or more VLAN attributes in the data structure further includes one or more associated methods for providing data to the network; and

wherein said determining the first VLAN of the plurality of possible VLANs includes accessing the memory medium and using the received system identification information to determine the first VLAN and one of the one or more associated methods for providing data to the network.

157. (Previously presented) The method of claim 146,

wherein the system identification information includes an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification (SID).

158. (Previously presented) The method of claim 157,

wherein the System Identification includes one or more of a wireless Ethernet Service Set Identification (SSID), an Extended Service Set Identification (ESSID), and a Basic Service Set Identification (BSSID).

159. (Previously presented) The method of claim 158,

wherein the BSSID includes an Institute of Electronic Engineers (IEEE) standardized Media Access Control Identification (MAC ID).

160. (Previously presented) The method of claim 146, wherein said providing the received data to a first network service provider based on one or more attributes of the determined first VLAN further comprises

determining an access level for the portable wireless computing device after receiving the system identification information; and

selectively providing the received data to a first network service provider based on the determined access level.

161. (Previously presented) The method of claim 146, further comprising:

the first access point concurrently using a plurality of radio frequency (RF) channels for communicating with one or more portable wireless computing devices.

162. (Previously presented) The method of claim 161,

wherein a first RF channel of the plurality of RF channels and a second RF channel of the plurality of RF channels are non-overlapping RF channels.

163. (Previously presented) The method of claim 146,

wherein the network is operable to support the Institute of Electronic Engineers (IEEE) 802.1p transmission protocol.

164. (Previously presented) The method of claim 146,

wherein the network is operable to enforce a Quality of Service (QoS) metric as defined in the Institute of Electronic Engineers (IEEE) 802.1P transmission protocol.

165. (Previously presented) The method of claim 146, further comprising:

the first access point broadcasting a plurality of possible System Identifications (SIDs), wherein each of the plurality of possible SIDs is associated with at least one VLAN of the plurality of possible VLANs.

166. (Previously presented) The method of claim 165,

wherein said broadcasting the plurality of possible SIDs includes a beacon format.

167. (Cancelled).

168. (Previously presented) The method of claim 146, wherein the first access point is arranged at a known geographic location, the providing network access to the portable wireless computing device further comprising:

selectively providing network access to the portable wireless computing device based on the known geographic location of the first access point.

169. (Previously presented) The method of claim 146, wherein the first access point is arranged at a known geographic location, the providing network access to the portable wireless computing device further comprising:

determining an access level for the portable wireless computing device from the received system identification information;

selectively providing network access to the portable wireless computing device based on the known geographic location of the first access point and the determined access level.

170. (Previously presented) The method of claim 146, further comprising:

assigning a wireless communication channel for communication between the first access point and the portable wireless computing device.

171. (Previously presented) The method of claim 170,

wherein the first access point assigns the wireless communication channel for communication between the first access point and the portable wireless computing device.

172. (Previously presented) The method of claim 170, wherein said assigning

comprises assigning the wireless communication channel based on the system identification information received from the portable wireless computing device.

173. (Cancelled).

174. (Previously presented) An apparatus to implement an access point, the apparatus comprising

a wireless access point coupled to a network, wherein the wireless access point is operable to wirelessly communicate with a portable wireless computing device, wherein the first wireless access point is operable to receive system identification information from the portable wireless computing device including an identifier of a VLAN from among a plurality of possible VLANs;

wherein each of at least two of the plurality of possible VLANs corresponds to a different respective network service provider from among a plurality of network service providers;

wherein the first wireless access point is operable to determine the identifier of the VLAN indicated in the system identification information, wherein the determined VLAN corresponds to a first network service provider;

wherein the first wireless access point is operable to determine a geographic location of the portable wireless computing device;

wherein the first wireless access point is operable to select the first network service provider from among the plurality of possible network service providers based on the determined VLAN to provide network access to the portable wireless computing device; and

wherein the first wireless access point is operable to selectively provide the network access based on the received system identification information and the determined geographic location of the portable wireless computing device.

175. (Previously presented) The apparatus of claim 174,

wherein each of the plurality of possible VLANs is associated with a respective network destination of a plurality of possible network destinations;

wherein the first VLAN is associated with a first network destination; and

wherein the apparatus is operable to:

receive data from the portable wireless computing device.

determine, as a function of the first VLAN identifier, the first network destination; and

forward the received data to the determined first network destination using the first VLAN.

176. (Previously presented) The apparatus of claim 175,

wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

177. (Previously presented) A system comprising:

a wireless access point operable to communicate with a portable wireless computing device in a wireless fashion,

wherein the wireless access point is configured to receive system identification information from the portable wireless computing device indicating a VLAN from among a plurality of possible VLANs;

wherein the wireless access point is operable to determine the VLAN indicated by the system identification information;

wherein the wireless access point is operable to determine a geographic location of the portable wireless computing device;

wherein the wireless access point is operable to selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided through the determined VLAN;

wherein at least two of the plurality of possible VLANs is associated with a different respective network service provider from among a plurality of network service providers; and

wherein the access point is operable to maintain an association between each of the at least two of the plurality of possible VLANs and the respective network provider from among a plurality of network service providers.

178. (Cancelled).

179. (Previously presented) The system of claim 177,

wherein network access is provided to the portable wireless computing device through the first access point to the respective network provider.

180. (Previously presented) The system of claim 177,

wherein the system identification information includes an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification (SID) of a plurality of possible SIDs; and

wherein the first access point is operable to recognize the SID of a plurality of possible SIDs, wherein each of the recognized plurality of possible SIDs is associated with a respective one of the plurality of possible VLANs.

181. (Previously presented) The system of claim 180,

wherein at least a subset of the plurality of possible SIDs includes one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).

182. (Previously presented) The system of claim 180, further

operable to maintain an association between each one of a plurality of possible SIDs and a respective one of the plurality of possible VLANs.

183. (Previously presented) The system of claim 180,

wherein each member of a non-empty subset of the plurality of possible VLANs is associated with a respective service provider; and

wherein the first access point is further operable to maintain an association between each member of the non-empty subset of the plurality of possible SIDs and a plurality of active subscribers of the associated service provider.

184. (Previously presented) The system of claim 180, further operable to broadcast a non-empty subset of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated with a respective one of the plurality of VLANs.

185. (Previously presented) The system of claim 184, further operable to use a beacon format to broadcast the non-empty subset of the plurality of possible SIDs.

186. (Previously presented) The system of claim 184,

wherein the non-empty subset of the plurality of possible SIDs includes one or more of a Service Set ID (SSID), an Extended Service Set ID (ESSID), and a Basic Service Set ID (BSSID).

187. (Previously presented) The system of claim 177, further operative to provide a plurality of virtual access points, wherein each virtual access point of the plurality of virtual access points corresponds to one of the plurality of possible VLANs, and wherein each virtual access point of the plurality of virtual access points provides network access services to one or more portable wireless computing devices through the corresponding VLAN.

188. (Previously presented) The system of claim 187,

wherein each virtual access point of the plurality of virtual access points provides access point functionality, wherein each virtual access point of the plurality of virtual access points is operable to simulate a distinct physical access point to the portable wireless computing device.

189. (Previously presented) The system of claim 187,

wherein each virtual access point of the plurality of virtual access points executes a wireless transmission protocol stack.

190. (Previously presented) The system of claim 189,

wherein the wireless transmission protocol stack comprises an Institute of Electronic Engineers (IEEE) standardized 802.11 protocol stack.

191. (Previously presented) The system of claim 187,

wherein each virtual access point of the plurality of virtual access points includes an Institute of Electronic Engineers (IEEE) standardized 802.11 Extended Service Set ID (ESSID), and wherein each ESSID corresponds to one of the plurality of possible VLANs.

192. (Previously presented) The system of claim 177, further comprising:

a memory medium coupled to the network which stores a data structure comprising a list of system identification entries and, for each entry, a respective VLAN associated with the system identification; and

wherein, in said maintaining an association between a VLAN and a system identification, the system is further operable to access the memory medium and use the received identification information to index the memory medium to determine the VLAN.

193. (Previously presented) The system of claim 192,

wherein the memory medium is contained in the access point.

194. (Previously presented) The system of claim 177,

wherein the access point is maintained by a first network service provider; and

wherein the VLAN identification information is associated with a second network service provider.

195. (Previously presented) The system of claim 177,

wherein the access point is arranged at a known location in a geographic region, wherein the access point is operable to provide geographic location information indicating the geographic location of the portable wireless computing device.

196. (Previously presented) The system of claim 177,

wherein the first access point is operable to assign a wireless communication channel for communication between the first access point and the portable wireless computing device.

197. (Previously presented) The system of claim 177, wherein access point is operable to assign a wireless communication channel based on one or more of:

the system identification information received from the portable wireless computing device, and

a determined access level for the portable wireless computing device, wherein said access level is determined from the system identification information.

198. (Previously presented) The system of claim 177, wherein one or more of the plurality access points are operable to assign an Institute of Electronic Engineers (IEEE) standardized Quality of Service (QoS) based on one or more of:

the system identification information received from the portable wireless computing device, and

a determined access level for the portable wireless computing device, wherein said access level is determined from the system identification information.

199. (Previously presented) The system of claim 177,

wherein the network is operable to support the Institute of Electronic Engineers (IEEE) standardized transmission protocol commonly known as IEEE 802.1p.

200. (Previously presented) The system of claim 177,

wherein the first access point is operable to concurrently use a plurality of radio frequency (RF) channels for communicating with one or more portable wireless computing devices.

201. (Previously presented) The system of claim 200, wherein a first RF channel of the plurality of RF channels and a second RF channel of the plurality of RF channels are non-overlapping RF channels.

202. (Previously presented) A method for operating a network system, the method comprising:

receiving, in a first access point coupled to a network, system identification information transmitted from a portable wireless computing device in a wireless manner;

determining, in the first access point, a VLAN tag corresponding to the system identification information;

determining a geographic location of the portable wireless computing device;

selectively providing network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the determined VLAN tag;

providing the VLAN tag and the data received from the portable wireless computing device to the network;

maintaining an association between the VLAN tag and a respective network provider from among the plurality of network providers; and

routing the data received from the portable wireless computing device to the respective network provider associated with the determined VLAN tag from among the plurality of network providers.

203. (Previously presented) The method of claim 202,

wherein the first access point and the portable wireless computing device communicate using wireless Ethernet.

204. (Previously presented) The method of claim 202,

wherein the identification information comprises an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification.

205. (Previously presented) The method of claim 204,

wherein the System Identification comprises one or more of a wireless Ethernet Service Set Identification (SSID), an Extended Service Set Identification (ESSID), and a Basic Service Set Identification (BSSID).

206. (Previously presented) The method of claim 202,

wherein said associating comprises accessing a memory medium coupled to the network to determine one or more attributes to associate with the determined VLAN tag corresponding to the identification information.

207. (Previously presented) The method of claim 206,

wherein the memory medium comprises a data structure which includes a list of VLAN identification information entries and, for each entry, a corresponding list of VLAN attributes.

208. (Previously presented) The method of claim 207,

wherein said determining comprises using the identification information to index into the data structure using the identification information to determine the VLAN attributes.

209. (Previously presented) The method of claim 206,

wherein the first access point contains the memory medium.

210. (Previously presented) The method of claim 202, wherein the system identification information includes an Institute of Electronic Engineers (IEEE) standardized Media Access Control Identification (MAC ID).

211. (Previously presented) The method of claim 202, wherein the system identification information comprises a digital certificate.

212. (Previously presented) The method of claim 202, further comprising:

the first access point receiving second system identification information from a second portable wireless computing device in a wireless manner;

the first access point determining a second VLAN tag corresponding to the second system identification information, wherein the second VLAN tag is associated with a second network provider;

the first access point receiving second data from the second portable wireless computing device in a wireless manner; and

the first access point providing the second VLAN tag and the second data received from the second portable wireless computing device to the network, wherein the second VLAN tag is usable by the network to route the second data received from the second portable wireless computing device based on the second network provider;

wherein the identification information is different from the second identification information; and

wherein the first network provider is different from the second network provider.

213. (Previously presented) The method of claim 212,

wherein the second identification information comprises an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification.

214. (Previously presented) The method of claim 213,

wherein the System Identification comprises one or more of a wireless Ethernet Service Set Identification (SSID), an Extended Service Set Identification (ESSID), and a Basic Service Set Identification (BSSID).

215. (Previously presented) The method of claim 202, further comprising:

determining a Quality of Service (QoS) metric as defined in the Institute of Electronic Engineers (IEEE) 802.1 P transmission protocol based on the received system identification information;

wherein said providing the VLAN tag and the data received from the portable wireless computing device to the network is based on the determined QoS metric.

216. (Previously presented) The method of claim 202,

wherein the VLAN tag is associated with a Quality of Service (QoS) metric as defined in the Institute of Electronic Engineers (IEEE) 802.1 p transmission protocol; and

wherein the network is operable to route the data received from the portable wireless computing device to a network destination based on the quality of service indicated by the QoS metric.

217. (Previously presented) The method of claim 202, further comprising:

transmitting a request for access to a remote host for the network service provider identified as a potential recipient of the data from the portable wireless computing device;

receiving, from the remote host, a response to the request for access; and

selectively forwarding the data to the portable wireless computing device based on the response.

218. (Previously presented) The method of claim 202, wherein the first access point is arranged at a known geographic location, the selectively providing network access to the portable wireless computing device further comprising:

providing geographic location information indicating the geographic location of the portable wireless computing device;

transmitting a request for access to a remote host for the network service provider identified as a potential recipient of the data from the portable wireless computing device including the geographic location of the portable wireless computing device;

receiving, from the remote host, a response to the request for access; and

selectively providing network access to the portable wireless computing device based on the response.

219. (Previously presented) The method of claim 202, wherein the first access point is arranged at a known geographic location, the selectively providing network access to the portable wireless computing device further comprising:

providing geographic location information indicating the geographic location of the portable wireless computing device;

determining an access level for the portable wireless computing device after receiving the system identification information;

transmitting a request for access to a remote host for the network service provider identified as a potential recipient of the data from the portable wireless computing device including the geographic location of the portable wireless computing device and the determined access level;

receiving, from the remote host, a response to the request for access; and

wherein said providing network access comprises selectively providing network access to the portable wireless computing device based on the response.

220. (Previously presented) The method of claim 202, further comprising:

the first access point concurrently using a plurality of radio frequency (RF) channels for communicating with one or more portable wireless computing devices.

221. (Previously presented) The method of claim 220, wherein a first RF channel of the plurality of RF channels and a second RF channel of the plurality of RF channels are non-overlapping RF channels.

222-255. (Cancelled).

256. (Previously presented) A computer readable memory medium comprising program instructions for providing access to a network system, wherein the program instructions are executable by a wireless access point and are operable to:

receive system identification information from a portable wireless computing device in a wireless manner, wherein the system identification information includes an identifier for a first VLAN of a plurality of possible VLANs and wherein each of at least two of the plurality of possible VLANs corresponds to a different respective network service provider from among a plurality of network service providers;

determine a first VLAN identifier of for the portable wireless computing device after receiving the identification information, wherein the first VLAN is associated with a first network service provider;

determine a geographic location of the portable wireless computing device;

selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the determined first VLAN;

receive data from the portable wireless computing device; and

provide the received data to the first network service provider using one or more attributes associated with the first VLAN.

257. (Previously presented) The computer readable memory medium of claim 256,

wherein an attribute associated with the first VLAN corresponds to a first network destination;

wherein, in said providing, the program instructions are further operable to forward the data to the first network destination.

258. (Previously presented) The computer readable memory medium of claim 256,

wherein each of a plurality of possible VLANs corresponds to a respective network destination of a plurality of possible network destinations;

wherein the first VLAN corresponds to a first network destination;

wherein, in said providing, the program instructions are further executable by the wireless access point to provide the received data to the first network destination using one or more attributes of the first VLAN.

259. (Previously presented) The computer readable memory medium of claim 258,

wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

260. (Previously presented) The computer readable memory medium of claim 258,

wherein each member of a non-empty subset of the network destinations is associated with a respective wireless service provider.

261. (Previously presented) The computer readable memory medium of claim 258, wherein the program instructions are further operable to:

receive second system identification information from a second portable wireless computing device in a wireless manner, wherein the second system identification information indicates a second VLAN of the plurality of possible VLANs;

determine the second VLAN of the plurality of possible VLANs for the second portable wireless computing device from the second system identification information;

receive data from the second portable wireless computing device; and

provide the received data to the network using one or more attributes of the second VLAN.

262. (Previously presented) The computer readable memory medium of claim 256, wherein the program instructions are further operable to:

receive second system identification information from a second portable wireless computing device in a wireless manner;

determine a second VLAN of the plurality of possible VLANs from the second system identification information;

receive second data from the second portable wireless computing device; and

provide the second received data to the network using one or more attributes of the second VLAN.

263. (Previously presented) The computer readable memory medium of claim 256,

wherein, in said determining the first VLAN of the plurality of possible VLANs, the program instructions are further operable to access a memory medium coupled to the network and use the received system identification information to determine a first VLAN identifier, wherein the memory medium stores a data structure comprising a list of entries of system identification information and, for each entry, a corresponding list of one or more respective attributes of the identified VLAN.

264. (Previously presented) The computer readable memory medium of claim 263,

wherein, in said determining the first VLAN of the plurality of possible VLANs, the program instructions are further operable to index into the data structure using the system identification information to determine the one or more attributes of the first VLAN.

265. (Previously presented) The computer readable memory medium of claim 263, wherein the memory medium is contained in the first access point.

266. (Previously presented) The computer readable memory medium of claim 263,

wherein the data structure further includes one or more associated methods for providing data to the network; and

wherein, in said determining the first VLAN of the plurality of possible VLANs, the program instructions are operable to access the memory medium and use the received system identification information to determine the first VLAN and an associated method for providing data to the network.

267. (Previously presented) The computer readable memory medium of claim 256,

wherein the identification information comprises an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification.

268. (Previously presented) The computer readable memory medium of claim 267,

wherein the System Identification comprises one or more of a wireless Ethernet Service Set Identification (SSID), an Extended Service Set Identification (ESSID), and a Basic Service Set Identification (BSSID).

269. (Previously presented) The computer readable memory medium of claim 268, wherein the BSSID includes an Institute of Electronic Engineers (IEEE) standardized Media Access Control Identification (MAC ID).

270. (Previously presented) The computer readable memory medium of claim 256, wherein, in said providing the received data to the network using the first VLAN, the program instructions are further operable to:

determine an access level for the portable wireless computing device from the received system identification information; and

selectively provide the received data to the network using the first VLAN based on the determined access level.

271. (Previously presented) The computer readable memory medium of claim 256, wherein the program instructions are further operable to:

concurrently use a plurality of radio frequency (RF) channels for communicating with one or more portable wireless computing devices.

272. (Previously presented) The computer readable memory medium of claim 271, wherein a first RF channel of the plurality of RF channels and a second RF channel of the plurality of RF channels are non-overlapping RF channels.

273. (Previously presented) The computer readable memory medium of claim 256, wherein the program instructions are further operable to:

broadcast a plurality of possible System Identifications (SIDs), wherein each of the plurality of possible SIDs is associated with at least one VLAN of the plurality of possible VLANs.

274. (Previously presented) The computer readable memory medium of claim 273,

wherein, in said broadcasting the plurality of possible SIDs, the program instructions are further operable to use a beacon format.

275. (Cancelled).

276. (Previously presented) The computer readable memory medium of claim 256, wherein the wireless access point is arranged at a known geographic location and wherein the program instructions are further operable to selectively provide network access to the portable wireless computing device by providing the network access based on the known geographic location of the wireless access point.

277. (Previously presented) The computer readable memory medium of claim 256, wherein the wireless access point is arranged at a known geographic location and wherein the program instructions are further operable to selectively provide network access to the portable wireless computing device by:

determining an access level for the portable wireless computing device from the received system identification information; and

providing network access to the portable wireless computing device using the first VLAN based on the known geographic location of the wireless access point and the determined access level.

278. (Previously presented) The computer readable memory medium of claim 256, wherein the program instructions are further operable to assign a wireless communication channel for communication between the first access point and the portable wireless computing device.

279. (Previously presented) The computer readable memory medium of claim 278, wherein, in said assigning, the program instructions are further operable to assign the wireless communication channel based on the system identification information received from the portable wireless computing device.

280-285. (Cancelled).

286. (Previously presented) A network system, comprising:

a plurality of wireless access points coupled to a network, wherein each of the plurality of wireless access points is operable to communicate with a portable wireless computing device in a wireless fashion;

wherein each of the plurality of wireless access points is configured to receive system identification information from the portable wireless computing device including an identifier for a VLAN from among a plurality of possible VLANs;

wherein each of the plurality of access points is operable to determine the VLAN indicated by the system identification information;

wherein each of the plurality of wireless access points is operable to determine a geographic location of the portable wireless computing device;

wherein each of the plurality of wireless access points is operable to selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided through the determined VLAN;

wherein the system identification information includes an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification (SID) of a plurality of possible SIDs;

wherein the first access point is operable to recognize the SID of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is associated with a respective one of the plurality of possible VLANs;

wherein each of the plurality of possible SIDs includes one or more of an Institute of Electronic Engineers (IEEE) standardized 802.11 Service Set Identifier (SSID), an Extended Service Set Identifier (ESSID), and a Basic Service Set Identifier (BSSID).

287. (Previously presented) A system comprising:

a wireless access point operable to communicate with a portable wireless computing device in a wireless fashion, wherein the wireless access point is configured to receive system identification information from the portable wireless computing device including an identifier for VLAN of a plurality of possible VLANs;

wherein the wireless access point is operable to determine the VLAN indicated by the system identification information;

wherein the wireless access point is operable to determine a geographic location of the portable wireless computing device;

wherein the wireless access point is operable to selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided through a service provider associated with the determined VLAN;

wherein the system identification information includes an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification (SID) parameter to distinguish the SID from among a plurality of possible SIDs;

wherein the wireless access point is operable to recognize each SID of the plurality of possible SIDs, wherein each of the plurality of possible SIDs is identified with a respective one of the plurality of possible VLANs;

wherein each of at least two of the plurality of possible VLANs is associated with a different respective service provider; and

wherein, for each of the at least two VLANs associated with a different respective service provider and identified by an SID, the wireless access point is operable to maintain an association between the SID and a respective plurality of active subscribers of the associated service provider.

288. (Previously presented) A network system, comprising:

a plurality of wireless access points coupled to a network, wherein each of the plurality of wireless access points is operable to communicate with a portable wireless computing device in a wireless fashion, wherein each of the plurality of wireless access points is configured to receive system identification information from the portable wireless computing device including an identifier for a VLAN of a plurality of possible VLANs;

wherein each of the plurality of access points is operable to determine the VLAN indicated by the system identification information;

wherein each of the plurality of access points is operable to determine a geographic location of the portable wireless computing device;

wherein each of the plurality of wireless access points is operable to selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided through the determined VLAN;

wherein the plurality of access points are maintained by a first network service provider; and

wherein the system identification information indicates a second network service provider.

289. (Previously presented) An apparatus providing a wireless access point, the apparatus comprising:

a processor;

a memory medium coupled to the processor;

a port coupled to the processor, wherein the port is operable to be coupled to a network; and

a wireless transceiver coupled to the processor;

wherein the wireless transceiver is operable to receive system identification information from a portable wireless computing device in a wireless manner, wherein the system identification information includes an identifier for a first VLAN of a plurality of possible VLANs, and wherein each member of a non-empty subset of the plurality of possible VLANs corresponds to a respective network service provider;

wherein the memory medium contains program instructions executable by the processor and operable to:

determine the identifier for the first VLAN of the plurality of possible VLANs for the portable wireless computing device after receiving the identification information;

determine a geographic location of the portable wireless computing device;

selectively provide network access to the portable wireless computing device based on the received system identification information and the determined geographic location of the portable wireless computing device, the network access provided using the first VLAN; and

provide data received from the portable wireless computing device to a first network service provider, wherein the first network service provider is associated with one or more attributes of the first VLAN.

290. (Previously presented) The apparatus of claim 289,

wherein an attribute associated with the first VLAN corresponds to a first network destination;

wherein said providing comprises forwarding the received data to the first network destination.

291. (Previously presented) The apparatus of claim 289,

wherein each of the plurality of possible VLANs has an attribute that corresponds to a respective network destination of a plurality of possible network destinations;

wherein the first VLAN is associated with a first network destination;

wherein said providing comprises forwarding the received data to the first network destination.

292. (Previously presented) The apparatus of claim 291,

wherein the use of different VLANs for different network destinations operates to separate data traffic on the network for each of the network destinations.

293. (Previously presented) The apparatus of claim 289,

wherein the first network service provider is a wireless service provider.

294. (Previously presented) The apparatus of claim 289,

wherein the wireless transceiver is operable to receive second system identification information from a second portable wireless computing device in a wireless manner, wherein the second system identification information includes an identifier for a second VLAN of the plurality of possible VLANs;

wherein the program instructions are executable by the processor and operable to:

determine the identifier of the second VLAN of the plurality of possible VLANs for the second portable wireless computing device based on the second identification information; and

provide data received from the second portable wireless computing device to a second network service provider, wherein the second network service provider is associated with one or more attributes of the second VLAN.

295. (Previously presented) The apparatus of claim 289,

wherein the memory medium comprises a data structure comprising a list of system identification entries and, for each entry in the list, one or more attributes of a corresponding VLAN; and

wherein, in determining the first VLAN of the plurality of possible VLANs, the program instructions are executable to access the data structure and use the received system identification information to determine one or more attributes of the first VLAN.

296. (Previously presented) The apparatus of claim 295,

wherein the data structure further comprises associated methods for providing data to the network; and

wherein the program instructions are executable to use the received system identification information to determine the first VLAN and an associated method for providing data to the network.

297. (Previously presented) The apparatus of claim 289, wherein the identification information includes an Institute of Electronic Engineers (IEEE) standardized 802.11 System Identification (SID).

298. (Previously presented) The apparatus of claim 289, wherein the program instructions are further executable to:

determine an access level for the portable wireless computing device after receiving the identification information; and

selectively provide the received data to the first network service provider based on the determined access level.

299. (Previously presented) The apparatus of claim 289, wherein the wireless access point concurrently uses a plurality of radio frequency (RF) channels for communicating with a plurality of portable wireless computing devices.

300. (Previously presented) The apparatus of claim 289, wherein the wireless access point is operable to broadcast a plurality of possible System Identifications (SIDs), and wherein each of the plurality of possible SIDs is associated with at least one VLAN of the plurality of possible VLANs.

301. (Previously presented) The apparatus of claim 289,

wherein the wireless access point is arranged at a known geographic location;

wherein the wireless access point is operable to selectively provide network access to the portable wireless computing device by providing the network access based on the known geographic location of the wireless access point.

302. (Cancelled).

303. (Previously presented) The method of claim 146, further comprising the first access point receiving Global Positioning System (GPS) data from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device.

304. (Previously presented) The apparatus of claim 174, wherein the first wireless access point is further operable to receive Global Positioning System (GPS) data from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device.

305. (Previously presented) The system of claim 177, wherein the wireless access point is further operable to receive Global Positioning System (GPS) data from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device.

306. (Previously presented) The method of claim 202, further comprising receiving Global Positioning System (GPS) data from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device.

307. (Previously presented) The computer readable memory medium of claim 256, wherein the program instructions are further operable to receive Global Positioning System (GPS) data from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device.

308. (Previously presented) The network system of claim 286, wherein each of the plurality of wireless access points is further operable to receive Global Positioning System (GPS) data from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device.

309. (Previously presented) The system of claim 287, wherein the wireless access point is further operable to receive Global Positioning System (GPS) data from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device.

310. (Previously presented) The network system of claim 288, wherein each of the plurality of access points is further operable to receive Global Positioning System (GPS) data from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device.

311. (Previously presented) The apparatus of claim 289, wherein the program instructions are further operable to receive Global Positioning System (GPS) data from the portable wireless computing device in order to determine the geographic location of the portable wireless computing device.